A.D. 1899. Oct. 30. N°. 21,683.
BOULT'S AMENDED SPECIFICATION.

Fig. 1.

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3.

Fig. 4.

Fig. 5.

Fig. 2

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A.D. 1899. Oct. 30. N: 21,683.
BOULT'S Complete Specification.

(1 SHEET)

Fig. 1.

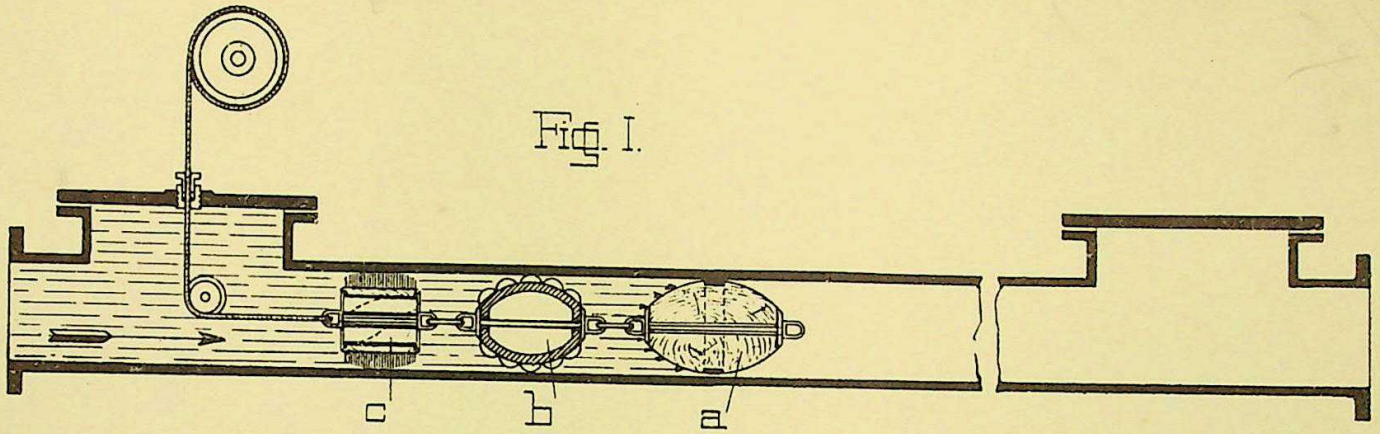
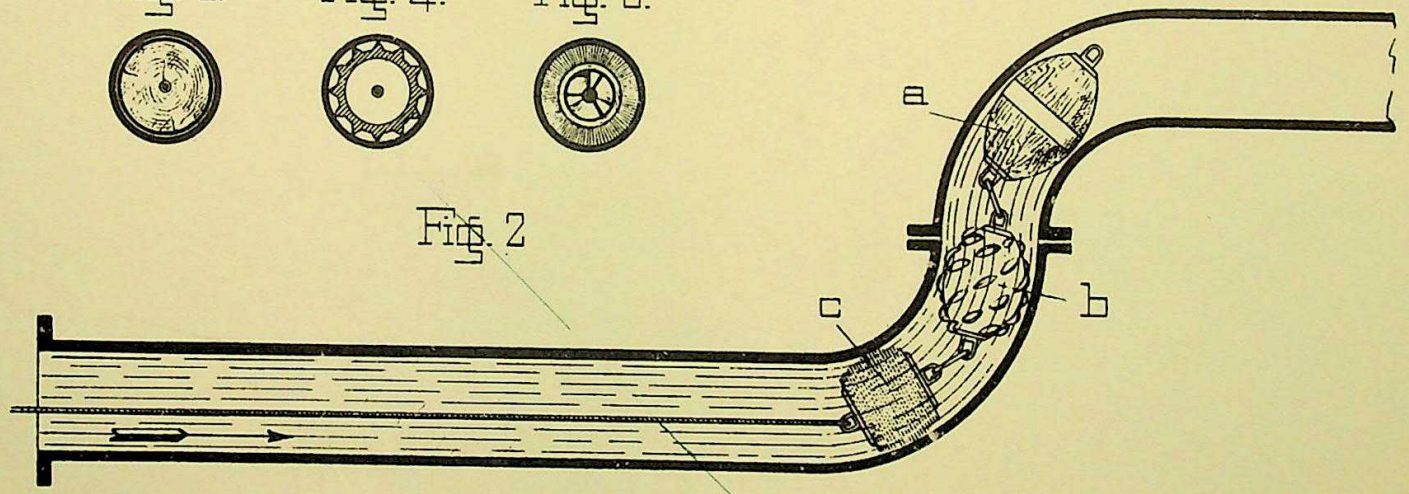


Fig. 3.

Fig. 4.

Fig. 5.

Fig. 2



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COMPLE

...rovements in or relating to Apparatus... Pipes and Conduits.

A communication from FRANZ NOVOTNY, of 14, Bal... Saale, Germany, and OTTO MIERISCH, of ... Germany.

I, ALFRED JULIUS BOULT, of 111, Hatton Ga... Chartered Patent Agent, do hereby declare th... what manner the same is to be performed, to b... tained in and by the following statement:—

In tubular pipes and conduits for water or other fluid... sediments become in time deposited on the sides and especia... of the conduits, which form in time a gradually thickening and ha... which it was, up to now, almost impossible to remove, especially ... extending for considerable lengths whereby not infrequently, the ve... of an extensive plant of such pipe conduits becomes threatened.

The object of the present invention therefore is an apparatus for scouring tubular conduits of all kinds, of any diameter and length and to remove from them the said deposits.

The apparatus in question is represented in the accompanying drawings,
Figure 1 showing it at work in a straight pipe.
Figure 2 in a bent pipe while,
Figure 3 represents a section through the pipe and the "piston" *a*,
Figure 4 a similar section through the scraper *b*, and
Figure 5 a section through the brush *c*.

The part *a* consists of a parabolical or other form of body having a circular cross section, the largest diameter of which is a few millimetres smaller than the diameter of the pipe to be cleaned and is intended to act as a guide and piston, which, owing to its slightly smaller diameter, can be driven, by means of compressed steam, air, water or by any other means of pressure, to which the said body offers a resisting surface, through and along the pipe.

The body *b* is made of resisting material and its surface is provided with sharpened teeth, scrapers, ribs or slots forming preferably an acute angle with the longitudinal axis of said body, owing to which arrangement the body, in passing through the tube, will have imparted to it a revolving motion like a screw.

By means of the movement through the pipe of this body thus armed, the hardened deposit is cut up and loosened.

The cylindrical device *c* is provided on its cylindrical surface with bristles such as steel wire brushes, and being of a diameter equal to the bore of the tube intended to be scoured will remove and carry off the sediment layer already cut up and loosened by the part *b*.

Figure 2 represents the apparatus in action in a bent part of the pipe conduit. In it the parts marked *a*, *b*, *c*, are the same as those so marked in Figure 1,

[*Price* 8*d*.]

to be used and
required degree is now
or the like in the direction ind
wings, in consequence of which the appa
ug the tubing drawing after it the line as it unwi
er of the pressure medium is sufficient to drive
oosened by the scraper *b* and caught by the brush *c*,
chamber, together with the apparatus itself, the
stoppage. After arriving, at the next chamber,
ut there, or drawn back through the conduit by
inch, to the chamber where it was inserted.
oved the fact that a pipe conduit of about 1000
wide can be scoured in a short time, under a
ithout stoppage, and this in spite of several bends
he tubular conduit.

cularly described and ascertained the nature of the said
nicated to me by my foreign correspondents, and in what
same is to be performed, I declare that what I claim is:—

atus for scouring pipes and tubular conduits by means of compressed
d comprising a piston body and scraper and a rotatory brush coupled together substantially as described.

2. Apparatus for scouring pipes and tubular conduits by means of compressed fluid comprising a piston body of circular cross section, a scraper provided with a series of scraping projections on its periphery, and a circular brush substantially as described.

3. In apparatus of the kind described a scraper body provided with scraping projections on its outer surface arranged at an acute angle to the longitudinal axis of the body substantially as described.

4. The complete apparatus for scouring pipes and tubular conduits substantially as described or illustrated in the accompanying drawings.

Dated this 30th day of October 1899.

BOULT, WADE & KILBURN,
Agents for the Applicant.

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